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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,486	07/08/2003	Jesse T. Quatse	134779.01101	9731

21269 7590 05/06/2010

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ART UNIT	PAPER NUMBER
3688	

MAIL DATE	DELIVERY MODE
05/06/2010	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/616,486
Filing Date: July 08, 2003
Appellant(s): QUATSE ET AL.

Joseph T. Helmsen
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 02/09/10 appealing from the Office action mailed 11/17/09.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 7-27 remain pending in the present application and are currently rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

2003/0208754	SRIDHAR ET AL	11-2003
6,684,195	DEATON ET AL	01-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-12, 18 and 20-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Sridhar et al (US 2003/0208754).

As per claim 23, Sridhar teaches:

In an electronic system for distributing promotional offers, a method of targeting a plurality of customers from a customer database for distribution of limited quantities of promotional offers from a plurality of promotional offers the method, comprising:

generating a plurality of scores for said plurality of customers, each said score being associated with one said customer and with one said offer, and each said score measuring a probability that the associated customer will make a purchase in accordance with the associated offer (see paragraph 116 “purchase prediction: The probability that a subscriber will purchase a particular product in a particular week is referred a purchase prediction” i.e. customer-offer score);

identifying, by a computing device in said electronic system a highest score in said plurality of scores (see paragraph 169 “select the ad of the product with largest purchase prediction for this subscriber from the products associated with the selected event”);

determining:

a customer, from said plurality of customers, associated with said highest score, and a first promotional offer, from said plurality of promotional offers, associated with said highest score (see paragraph 169);

assigning said first promotional offer to a first personalized offer list for said customer if said first promotional offer satisfies one or more constraints on one or more of the following: a total number of first promotional offers that are distributable, and a total number of promotional offers that are distributable to said customer (See paragraph 175 “sponsor defines restriction on number of offers");

successively repeating said identifying, determining and assigning steps for each highest score until all of the promotional offers in said plurality of promotional offers have been assigned to personalized offer lists (see paragraphs 165-180); and distributing one or more of the promotional offers to one or more of the customers in said plurality of customers (see paragraph 106, 165-191, "select product with next largest purchase prediction from product list of the current event and repeat step 19 to 27 until all products in the list are covered" see paragraph 191). Sridhar objective is to draw a customer's attention to a product which has the largest purchase prediction for said customer (see paragraph 156) and selects an ad from a set of ads pre-selected for said customer (see paragraph 106) where said ads are delivered to said customer in a sequence (i.e. from highest to lowest purchase prediction probability) from the products associated with a selected event (see paragraph 169-170) and where sponsors of said ads impose a restriction or constraint on the number of such offers (see paragraph 175). Therefore, Sridhar teaches a customer-based system as defined by Applicant's specification in page 7, lines 10-15 where products' offers are selected for each customer and where said offers are presented to said customer in a sequence based upon said offers' purchase prediction or score (i.e. probability that an offer would be accepted by a customer), similar to the Applicant's claimed invention.

As per claim 24, Sridhar teaches:

wherein said promotional offers relate to a plurality of products organized in taxonomic groupings, and the method further comprises:

basing the scores associated with one or more of said offers on the grouping probability that a customer will purchase any product in a given taxonomic grouping (see paragraph 133).

As per claim 25, Sridhar teaches:

wherein a score is based on said grouping probability and the offer associated with said score is for a product included in said given taxonomic grouping (see paragraph 133).

As per claim 26, Sridhar teaches:

wherein a score is based on said grouping probability and the offer associated with said score is for a product not included in said given taxonomic grouping (see figure 4C).

As per claim 27, Sridhar teaches:

wherein said one or more constraints include a limit on the number of offers delivered to any individual customer and said method further comprises: performing said assigning step for each said identified customer only a number of times equal to said limit (see paragraph 68).

As per claim 7, Sridhar teaches:

wherein said promotional offers relate to a plurality of products organized in taxonomic product grouping, and the method further comprises:

providing a product grouping probability profile associating with each said product grouping a measure of the probability that a customer will purchase a product from said product grouping (see paragraphs 213-229); and

deriving said score for each said combination of customer and promotional offer from the measure of probability associated with each product grouping containing a product subject to the promotional offer (see paragraphs 175-201).

As per claim 8, Sridhar teaches:

providing access to a transaction history database for at least a substantial portion of said plurality of customers, wherein the database associates with each customer of said substantial portion an identification of transactions engaged in by the customer and an identification of products previously purchased by the customer in each of the transactions (see paragraphs 71 and 134);

providing a transaction summary data structure associating with each said customer the total number of transactions the customer has engaged in and the numbers of transactions including each said product grouping (see paragraphs 140-159);

averaging the product groupings per transaction from said transaction summary data structure for at least a portion of said customers (see paragraphs 140-159); and

deriving said measure of probability associated with each said product grouping from the averaged product groupings per transaction for the associated product grouping (see paragraphs 140-159).

As per claim 9, Sridhar teaches:

normalizing said product grouping probability profile for an individual customer to reflect a relative probability of said individual customer purchasing from a product

grouping with respect to an average probability for a customer to purchase from said product grouping (see paragraphs 70, 140-160).

As per claim 10, Sridhar teaches:

applying preprogrammed targeting criteria embodying a marketing strategy to said product grouping probability profile to provide a profile of offer scores (see paragraph 160)

As per claim 11, Sridhar teaches:

said marketing strategy includes at least one targeting product grouping and a promoted product grouping linked to said at least one targeting product grouping; and said promotional offers are distributed only to customers having a high probability of acceptance for said at least one targeting product grouping (see paragraphs 175-178).

As per claim 12, Sridhar teaches:

providing a taxonomy of said product groupings; wherein said at least one targeting product grouping is defined in reference to said taxonomy (see paragraph 70, 133, figure 4C).

As per claim 18, Sridhar teaches:

In an electronic system for distributing promotional offers, a method of adjusting the distribution of limited quantities of promotional offers from a plurality of promotional offers to a plurality of customers comprising:

providing, for each combination of customer and promotional offer from said pluralities, a measure of an acceptance probability that the customer will accept the promotional offer (see paragraphs 175-201),

said acceptance probability being indicative of a likelihood said customer will accept the promotional offer in comparison to other customers included in said plurality of customers (see paragraph 175-178; Sridhar teaches that sponsors impose a restriction on number of offers and therefore, in order to determine which subscriber would receive an offer from a plurality of subscribers, Sridhar compares the likelihood that other subscribers would accept said offer based upon said subscribers demographic, previous history of accepted similar offers in the past and details of last accepted offer);

presenting the measures of acceptance probabilities for an individual customer in a graphical display on said electronic system (see figures 1A, 7; 4D2; paragraphs 136-149),

wherein said graphical display includes a plurality of graphic elements, one said graphic element being associated with each said measure of acceptance probability provided for said individual customer at least for the highest ranking of said measures (see paragraph 116; 136-149; figures 1A, 7);

enabling adjustment of said measures of acceptance probability by movement of the associated graphic elements; selecting by a computing device in said electronic system a limited quantity of offers from said plurality of offers for distribution to said individual customer, wherein said limited quantity of offers are selected substantially in descending order of said measures of acceptance probabilities as adjusted in said enabling step and distributing at least one of the limited quantity of offers to said individual customer (see paragraphs 164-201; see figure 7; 136-149).

As per claim 20, Sridhar teaches:

In an electronic system for distributing promotional offers, a method of distributing limited quantities of promotional offers to a plurality of customers utilizing a transaction history database comprising an identification of transactions engaged in and an identification of products previously purchased by one or more customers, said method comprising:

deriving a historical purchase probability profile from said transaction history database for at least a portion of the customers in said database and for a plurality of product groupings in said database, said historical purchase probability profile providing for each individual customer and for each individual product grouping a measure of the probability that said individual customer will purchase a product from said individual product grouping (see paragraphs 64, 71, 116);

for a customer included in said portion of the customers, applying a statistical model to said purchase probability profile to determine an estimated probability that said customer will purchase a product from said product groupings (see paragraph 134-135);

said estimated probability being indicative of a likelihood said customer will purchase said product in comparison to all other customers included in said portion of customers (see paragraph 175-178; Sridhar teaches that sponsors impose a restriction on number of offers and therefore, in order to determine which subscriber would receive an offer from a plurality of subscribers, Sridhar compares the likelihood that other subscribers would accept said offer based upon said subscribers demographic, previous history of accepted similar offers in the past and details of last accepted offer);

selecting by a computing device in said electronic system for distribution to said customer (see paragraphs 178, 212) an offer associated with a product in said product groupings, wherein said selected offer is associated with a highest estimated probability that said customer will purchase said product in comparison to all other customers included in said portion of customers (see paragraph 175);

determining whether said selected offer satisfies one or more constraints, wherein one or more constraints is a limitation on a total quantity of promotional offers for said product that are distributable to all customers and in response to said selected offer satisfying the one or more constraints, distributing the selected offers to said customer (see paragraph 175; "sponsors may impose a restriction on number of such offers").

As per claim 21, Sridhar teaches:

wherein said statistical model is an empirical Bayesian statistical model (see paragraph 135).

As per claim 22, Sridhar teaches:

wherein one or more of said product groupings includes one and only one product (see paragraph 191).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar et al (US 2003/0208754) in view of Deaton et al (U.S. 6,684,195).

As per claim 13, Sridhar fails to teach wherein said marketing strategy includes a MoveStock strategy. However, Deaton teaches a MoveStock strategy (see column 105, lines 63-67). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Sridhar would include a MoveStock marketing strategy, as taught by Deaton. It would important to Sridhar to include arbitrary grouping of products, such as hot cereals, because if a single product in the grouping of products is set up as a criteria and someone is infrequent to that criteria, a manufacturer might believe the customer is not buying hot cereals and would incorrectly target the customer with hot cereals' promotions.

As per claim 14, Sridhar fails to teach wherein said marketing strategy includes an UpSell strategy. However, Deaton teaches an UpSell marketing strategy (see column 90, lines 60-67; column 86). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Sridhar would include an UpSell marketing strategy, as taught by Deaton. Including this feature in Sridhar would induce customers to expend more, as the customers that expend more money would receive the better offers.

As per claim 15, Sridhar fails to teach wherein said marketing strategy includes a CrossSell strategy. However, Deaton teaches a CrossSell strategy (see column 106,

lines 11-40; column 109, lines 25-45; column 105). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Sridhar would include a CrossSell marketing strategy, as taught by Deaton. Sridhar would use the customers' purchase history to determine the promotions' offers that would induce customers to purchase the promoted products.

As per claim 16, Sridhar fails to teach wherein said marketing strategy includes a Reward strategy. However, Deaton teaches a reward marketing strategy (see column 74, lines 19-27). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Sridhar would include a Reward marketing strategy, as taught by Deaton. This feature would reward customers that purchase the promoted products.

As per claim 17, Sridhar fails to teach wherein said marketing strategy includes a BrandChange strategy. However, Deaton teaches a BrandChange marketing strategy (see column 103, lines 10-16). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Sridhar would include a BrandChange marketing strategy, as taught by Deaton. This feature would target customers with incentives to change products' brands.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar et al (US 2003/0208754).

As per claim 19, Sridhar fails to teach wherein said graphical display comprises a bar chart, said graphic elements comprise individual bars of said bar chart, and said movement comprises dragging said bars to lengthen and shorten them and thereby

increase and decrease the associated measure of acceptance probability. However, Official Notice is taken that it is old and well known in the computer art to use software programs to create bar charts from input data and adjust said bar charts according to a user preference. It would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that if Sridhar sorts the offers acceptance probability in order to determine the products with the largest purchase predictions, Sridhar would also present all the purchase prediction products in a graphic bar chart. The user would be able to adjust the graphic bar chart in the user's computer and would be able to select the products' offers based upon said adjustment.

(10) Response to Argument

The Appellant argues in pages 13-17, 20-22 of the Brief with respect to claims 18, 20, 23 that Appellant's claimed invention is directed to generating a plurality of scores for a plurality of customers but that Sridhar, according to the Appellant, is directed to individuals and predicting the likelihood that an individual will accept a single given offer. The Appellant further argues that the Appellant's claimed system distributes an offer to the customer having the highest probability of purchasing the promoted product but Sridhar cannot determine which customer has the highest probability of purchasing a product because, according to the Appellant, the system in Sridhar analyzes offers for a single customer in isolation. The Appellant further argues that Sridhar does not disclose assigning an advertisement to a customer based on constraints. The Appellant further argues that Sridhar does not teach "identifying the highest score in said plurality of scores for a plurality of customers and identifying the

customer substantially scoring said highest score" because according to the Appellant, Sridhar is merely capable of populating one row of the score matrix depicted in Appellant's specification figure 3, whereas the Appellant's claimed invention is capable of populating the entire matrix because it generates scores for a plurality of customers, rather than a single customer. The Appellant argues that Sridhar does not teach Appellant's claimed invention because Sridhar analyzes offers for a single customer in isolation (i.e. only one customer is considered at a time) and according to the Appellant, Sridhar distributes what if determine to be the best offer based on analyzing information only for the considered customer instead of examining offers for a plurality of customers concurrently. The Examiner answers that the Appellant is arguing about limitation not stated in the claims, as Appellant's claims are simply related to finding an acceptance probability that an individual or single customer will accept an offer in comparison to other customers and therefore, contrary to Appellant's argument, his claimed invention analyzes offers for a single customer at a time. Sridhar teaches in paragraphs 175-178 that sponsors impose a restriction on number of offers and therefore, in order to determine which subscriber would receive an offer from a plurality of subscribers, Sridhar compares the likelihood that other subscribers would accept said offer based upon said subscribers' demographic, previous history of accepted similar offers in the past and details of last accepted offer). Therefore, contrary to Appellant's argument, Sridhar teaches Appellant's claimed invention as Sridhar determines a purchase acceptance probability of an offer for a particular subscriber in comparison to the purchase acceptance probability of said offer from other subscribers in order to select a

subscriber to target offers that are limited in number. The Appellant argues that Sridhar does not teach that an offer be assigned to a customer only if the offer is within a total number of promotional offers that are distributable and/or a total number of promotional offers that are distributable to that customer. The Examiner that Sridhar teaches in paragraph 175 that sponsors impose a restriction on the number of offers that are distributable. Therefore, contrary to Appellant's argument, Sridhar teaches Applicant's claimed invention, as Sridhar places a constraint in the number of offers. Appellant's claim 23 recites "generating a plurality of scores for said plurality of customers, each said score being associated with one said customer and with one said offer and each said score measuring a probability that the associated customer will make a purchase in accordance with the associated offer; identifying the highest score in said plurality of scores and determining a customer from said plurality of customers, associated with said highest score" using Appellant's figure 3 to interpret said limitation. For example, using Appellant's figure 3, if said identifying said highest score is performed by customer (*i.e.* by row), offer 4 would have the highest score for customer 4. However, if said identifying the highest score is performed by offer (*i.e.* by column), customer 1 would have the highest score for offer 4. Appellant's specification discloses that Appellant's claimed invention is a "Customer-Based" targeting which is obtained by selecting from the same probability matrix of Figure 3 the two promotional offers of highest probability for each customer (see Appellant's specification page 14, lines 9-15). Therefore, using Appellant's specification, the Examiner would interpret that the Appellant's "identifying the highest score and identifying the customer substantially

scoring the highest score" would be performed by each customer (*i.e.* by each row of Appellant's figure 3) and targeting each customer with a personalize offer list would be interpreted as selecting from the same probability matrix of Figure 3 the promotional offers of highest probability for each customer (see Appellant's specification page 9, lines 1-15; see figure 4). Sridhar teaches a system with a plurality of subscribers (see paragraphs 63, 105; "select next subscriber") and also teaches targeting each subscriber from a plurality of subscribers with a personalize offer list (see paragraph 106 "set of ads pre-selected for a subscriber"; paragraph 169). Sridhar also teaches selecting a plurality of offers for each subscriber, ranking said offers in order of probability of being accepted by said subscriber (*i.e.* offers associated with the highest score") and distributing said offers to each subscriber in order of said probability, where said offers would be distributed to each subscriber from the largest to the lowest purchase prediction probability (see paragraphs 169-175). Therefore, contrary to Appellant's argument, Sridhar would populate a table similar to Appellant's specification figure 3 because Sridhar teaches a plurality of subscribers (see paragraphs 63 and 105) and Sridhar also teaches ranking offers to distribute to each subscriber from the largest to the lowest purchase prediction probability, therefore, populating each row in a table similar to Appellant's figure 4, where each row would indicate the personalize offer list of each subscriber. Furthermore, Sridhar also teaches "identifying the highest score in said plurality of scores and identifying the customer substantially scoring said highest score" as Appellant's claimed invention performed said identifying the highest score by each subscriber (*i.e.* by each row of Appellant's figure 3) and Sridhar also teaches selecting

the promotional offers of highest probability for each subscriber (see Sridhar paragraph 169). Furthermore, contrary to Appellant's argument, Sridhar can determine which subscriber has the highest probability of purchasing a product because Sridhar calculates the purchase prediction of an offer for all the subscribers that participate in the Sridhar system (see paragraph 63, 169). Therefore, contrary to Appellant's argument, Sridhar teaches Appellant's claimed invention.

The Appellant argues that in pages 18-19 of the Brief with respect to claim 7 that Sridhar does not teach providing a product grouping probability profile that associates a probability that a customer will purchase a product from the product grouping with each product grouping because according to the Appellant, Sridhar teaches advertisement groupings that corresponds to the products to which the advertisements corresponds, but do not refer to product groupings as required by claim 7. Furthermore, the Appellant argues that Sridhar merely relates to the number of advertisements that may be sent in certain week and not to, according to the Appellant, the probability that a customer will purchase a product in a product grouping. The Examiner answers that Sridhar teaches in paragraphs 133-135 computing purchase prediction for product groups, where said purchase prediction is based on learning of the purchase pattern of a product from the historical data and where the association between purchase of two different products and the influence of co-purchased on a product P are considered to determine the purchase prediction for product groups. Therefore, contrary to Appellant's argument, Sridhar teaches a product grouping probability profile and the probability that a customer will purchase a product in a product grouping.

The Appellant argues in page 23-25 of the Brief that neither Sridhar nor Deaton teaches "generating a plurality of scores for a plurality of customers, identifying the highest score in the plurality of scores for a plurality of customers, and providing the marketing information most likely to be accepted to each customer". The Examiner answers that Sridhar teaches a system where each subscriber from a plurality of subscribers (see paragraphs 63, 104-105) are targeted with a personalized offer list and where each offer in said list is ranked and distributed to said subscriber according to the order of acceptance probability for said subscriber (See paragraphs 165-172). Therefore, contrary to Appellant's argument, Sridhar teaches Appellant's claimed invention.

The Appellant argues in pages 25-26 with respect to claim 19 that the Office has failed through Official Notice that enabling adjustment of measures of acceptance probability by dragging bars of a bar chart to lengthen and shorten them to thereby increase and decrease the associated measure of acceptance probability was known in the art prior filing of the present application. The Examiner answers that the Appellant has not seasonably traversed the Examiner's taking of Official Notice. If applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 711,713 (CCPA 1943). The Examiner's Official Notice is taken to be admitted prior art.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/DANIEL LASTRA/
Primary Examiner, Art Unit 3688
April 26, 2010

Conferees:

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